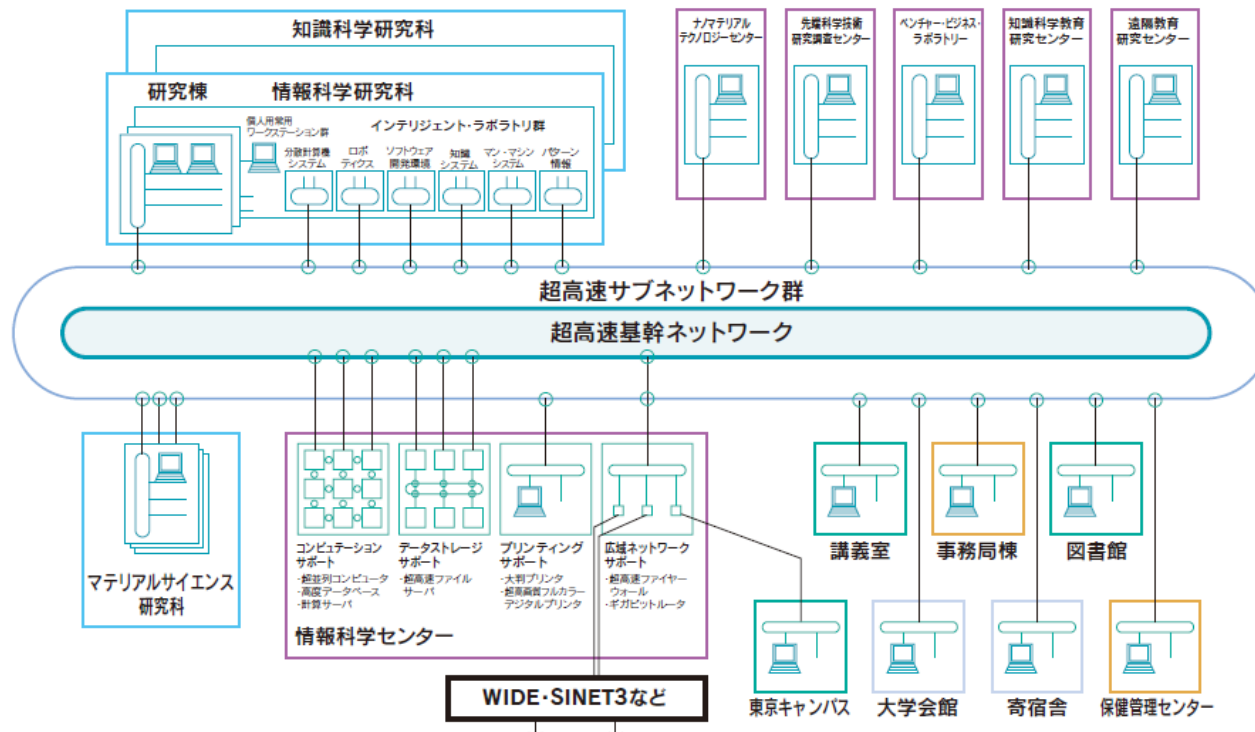


# What is JAIST I-Env.

- Consisting of network and information equipment.
- Supporting information processing for research and education.

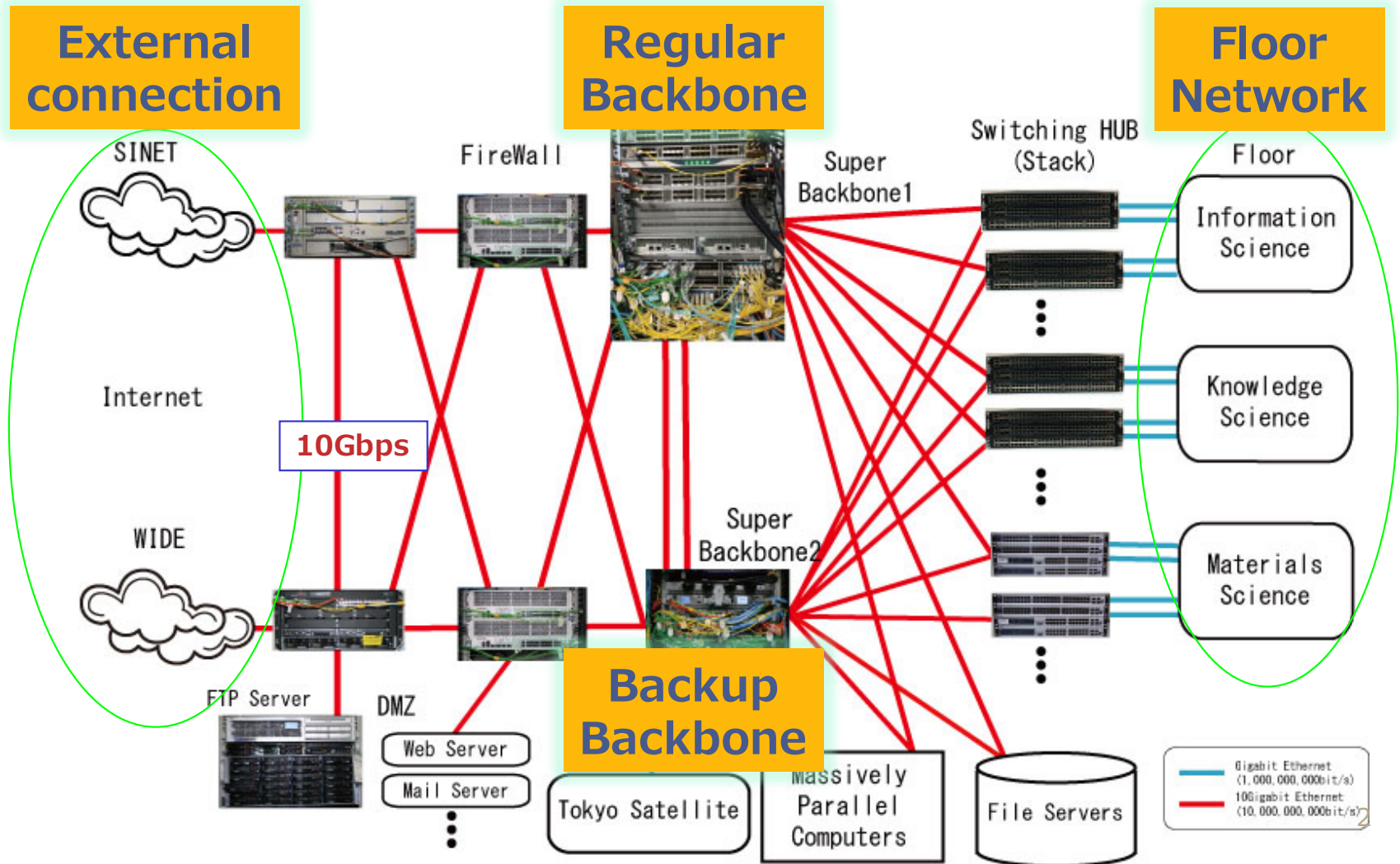
Centralized management

24/7 Service (Schedule blackout 1day/year)



From user devices to massive computational servers

# Overview of FRONTNET



# Key Features of **JAIST I-Env.**

- **Centralized Management for Terminal, Network & Storage**
  - Client: Laptop PCs are distributed to all students.
  - Server: Supporting both Windows and Linux.
  - File: Providing centralized data storage with backup.
  - Computation: You can share supercomputers.
  - Network: You can connect Giga-bit class connection at your booth.
- **Uniform Services at High Level**
  - Freely use of all resources on JAIST I-Env. anytime & anywhere.
  - Uniform access by high-speed wired and wireless LAN.
  - Centralized data management from our cloud services.
  - Transparent access to supercomputers.
  - Wide-bandwidth connection to internet and academic network.

# Equipment of JAIST I-Env.

## High-Performance Computers



**Cray XC40 (2017)**

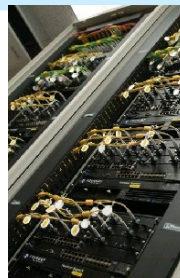


**LMPCC(2020)**

## JAIST Cloud Systems



**VPCC (2018)**



10Gbit/s broad-band access(2006~)

## File Servers



**DDN GRIDScaler (2017)**  
Service Volume: 1.2PB



**Dell EMC Isilon (2020)**

## User Terminals



**SurfacePro6(2020)**  
**SurfacePro(2018,19)**  
**SurfacePro4(2017)**

## High-Speed Network

# Innovativeness of **JAIST I-Env.**

## Award on “Energy Consumption Reduction on ICT Equipment by Introducing Advanced Campus Private Cloud system” (Prevention activity of global warming, Minister of the Environment, 2010)

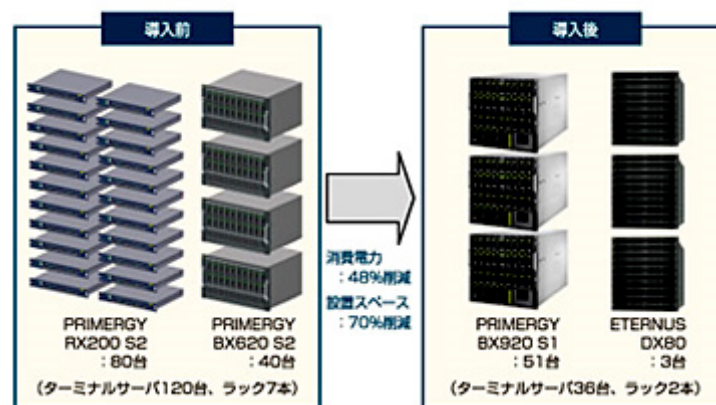
JAIST情報センターでは先端科学技術分野の研究データの生成、蓄積、利用を支える高度なICT環境の整備を進めておりましたが、学生、教職員、事務職員間ではサーバ使用の繁忙期間が異なることからサーバの稼働率にばらつきがありました。これを解決するために、使用目的や期間に合わせて必要な時に必要なコンピュータ能力を利用できる環境を整備した結果、従来使っていた約120台のサーバを、エネルギー削減効果に優れたブレードサーバなど54台に集約することにより、稼働率を向上し、全体で消費電力を48%削減したことが高く評価されたものです。



**Prof. Matsuzawa**

<http://www.jaist.ac.jp/news/press/2010/1215.html>

■ システム構成(導入前/導入後)





# Social Contribution via **JAIST I-Env.**

## Letter of appreciation on cooperation for information services at Fukushima Daiichi Nuclear Disaster

- 東日本大震災に伴う福島第一原子力発電所の事故により、都民の環境放射線情報への関心が急激に高まり、環境放射線測定結果の情報公開サーバ (<http://monitoring.tokyo-eiken.go.jp>) に処理能力を大幅に超えるアクセスが集中し、情報提供に支障を生じました。
- 同センターからの協力要請に対して、情報センターの宇多助教らは、以下のような協力を実施
  - 1) 本学で運用しているミラー・サーバ(<ftp.jaist.ac.jp>)を用いた情報発信機能の代替
  - 2) 東京都のマスター・サーバの性能改善・増強の方策に関する助言



Assist. Prof Uda



Letter of appreciation

<http://www.jaist.ac.jp/news/award/2011/post-300.html>

# Press articles on Our XC30



北國新聞  
4月4日朝刊17面



毎日新聞 4月4日朝刊22面 (石川面)



読売新聞  
4月4日朝刊30面 (石川面)



- Available for all students and faculty members
- Workshop for users holds on June and Oct.

# Summary of JAIST I-Env.

## ■ JAIST Cloud

- Uniform and centralized management of data
- Providing uniform environment, anytime and anywhere
- Users can focus on their research activities.

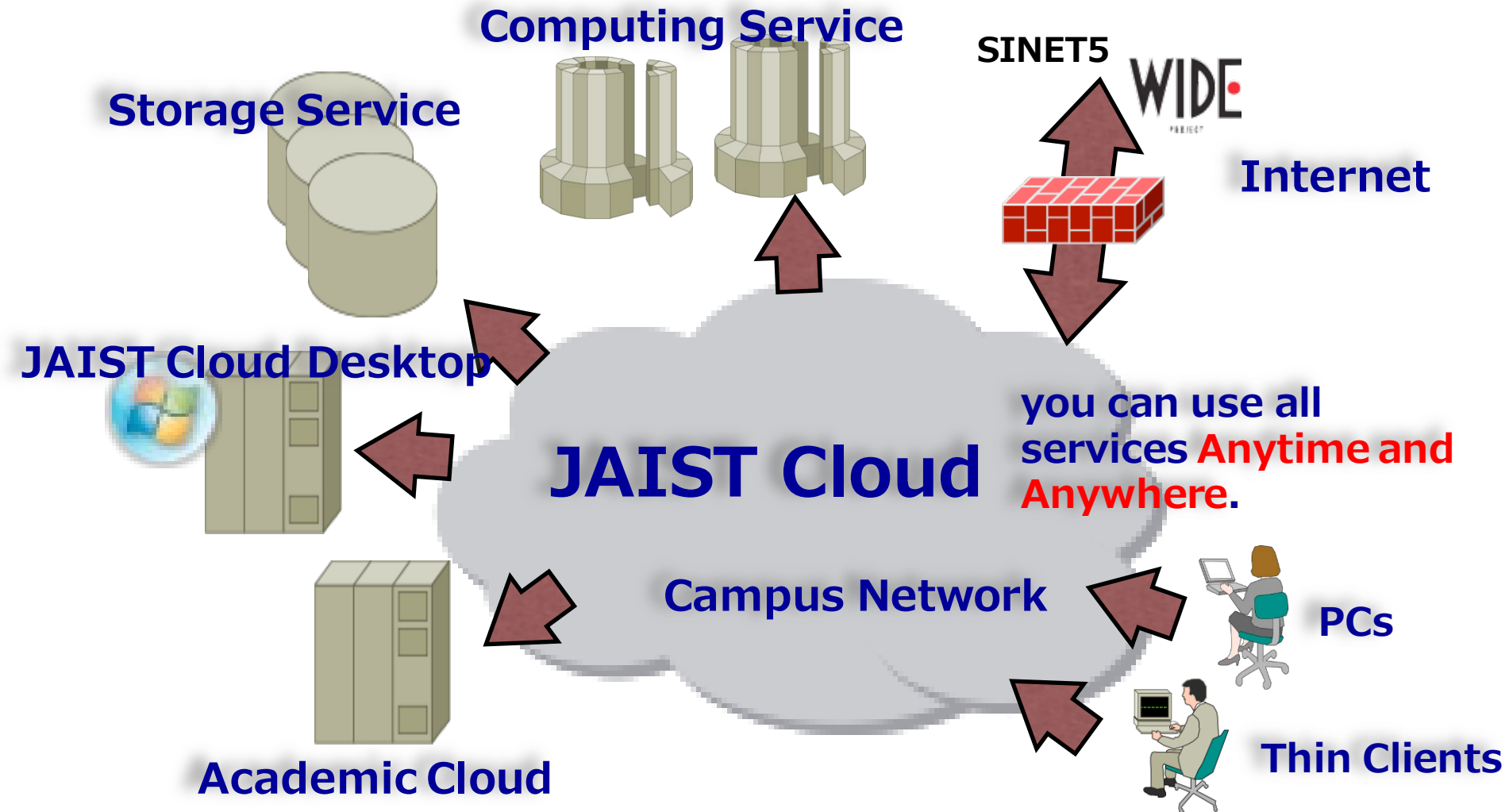
## ■ Advanced equipment in I-Env.

## ■ Operation by high technical skills

## ■ Contribution to society via technologies cultivated in I-Env.



# Architecture of **JAIST I-Env.**



# Surface Pro

- Students can borrow a MS Surface Pro one by one.



# JAIST Cloud Desktop



- All students are basically provided 1 Surface Pro.
- Anyone can use same environment from any clients in JAIST.
  - Using VMware Horizon Client.
- Different OS servers are available.
  - Research : Windows, Linux servers
- All files can be stored and backed up at file servers.
- Available on JAIST Cloud Desktop (Windows/Linux)
  - Microsoft Office
  - Image Processing/DTP/PDF Maker (Adobe Creative Cloud)
  - Computation/Visualization software (Matlab, Mathematica ETC)
  - Others (MobaXterm , Firefox, Thunderbird etc)

# Computing Servers



Surface



**LMPCC(2020)**

Large memory:Large  
Scale



**VPCC (2018)**  
General-Purpose



**Cray XC40 (2017)**  
Most powerful  
in JAIST (660.4 TFLOPS)

- Available 24/7 (except outage and maintenance)
- All students and faculty members can use them.
- Various libraries/software for scientific calculation are available.



# Software lineup

## ■ Available Software on JAIST

- Microsoft umbrella agreement ※1
  - <http://www.jaist.ac.jp/iscenter/en/software/microsoft/>
- MATLAB umbrella agreement ※1
- ESET Endpoint Protection ※2
  - ※1 Additionally, available on privately-owned devices (Office 365)
  - ※2 Additionally, available on privately-owned devices
- Other Software
  - <https://www.jaist.ac.jp/iscenter/en/software/>

# Printing・Bookbinding

- **JAIST Printing Service**
  - Color Multifunction Printer
- **Large sized Printer (60-inch)**
  - For A0/A1 Poster
- **Combined printer (including Copy/Scanner/Bookbinder)**
- **Media Cutter**
- **Simple book binder**
- **Big scanner**



- **Printing in black and white recommend because of cost trimming.**
- **Please restock paper (from administrative office) and toner (from RCACI)**